

**East Pioneer Watershed Assessment**  
**Executive Summary and Authorized Officer's**  
**Determination**



Middle Pasture, South Seven Springs Allotment, September 2006.

**Bureau of Land Management**  
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This document summarizes the findings of the East Pioneer Watershed Assessment (EPW) conducted during the 2008 field season. The assessment area covers approximately 81,202 total acres of land, of which 26,635 acres are public land administered by the Bureau of Land Management (BLM) in Beaverhead County, Montana. Of the total BLM-administered lands within the EPW, 25,004 acres are allotted for livestock grazing, 253 acres are unleased, and 1,378 acres are unallotted (unavailable for livestock grazing).

The following table summarizes the determination of Rangeland Health Standards by allotment. It also briefly describes resource concerns identified by the interdisciplinary team (IDT) and preliminary recommendations to mitigate these concerns and revise management where deemed necessary.

The BLM is currently working on National Environmental Policy Act (NEPA) documentation, which will include all BLM-administered public lands covered in the EPW. Alternative management will be analyzed wherever it is determined that allotments are not meeting the Standards, allotments are meeting the Standards but have site specific resource concerns, unhealthy forest and/or fuels conditions are outside the natural range of variability, or we have received an application to modify any of the authorized uses.

The issue of scale must be kept in mind in evaluating each standard. It is recognized that isolated sites within a landscape may be function-at-risk (FAR) and not meeting the standards; however, considering broader scope and scale, the area may be in proper functioning condition (PFC); or isolated sites may be PFC, but overall the resource in the allotment or area is FAR and not meeting the standards. No single indicator provides sufficient information to determine land health. They are used in combination to provide the necessary information to make a land health determination. Alternatively, just because a standard is being met, does not mean that the conditions on the ground represent desired resource conditions or objectives.

**Table 1.** Determination of Rangeland Health Standards, including primary resource concerns and IDT initial recommendations by allotment.

Allotment Name, Number, Category <sup>1</sup> , & BLM Acres	Are Land Health Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Birch Creek, 30365, (I), Acres: 2,881	YES	YES	*	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Localized infestations of leafy spurge and houndstongue.	1. Continue current management. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.

Allotment Name, Number, Category <sup>1</sup> , & BLM Acres	Are Land Health Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Burk SGC, 20657, (C), Acres: 80	YES	NO	*	YES	YES	1. Livestock impacts to one spring source and associated wetland. 2. Maintain and/or improve habitat for sensitive plants.	1. Enlarge spring enclosure and repair/reconstruct the water development. 2. Reduce the frequency or duration of growing season use, including periodic rest.
Cherry Creek, 20321, (M), Acres: 1,407	YES	YES	*	YES	YES	1. Active pedestalling, short water flow patterns, loss of soil A-horizon. 2. Shift in dominance toward needle and thread. 3. Maintain and/or improve habitat for sensitive plants. 4. Infestations of spotted knapweed along the road and houndstongue and black henbane along Cherry Creek (504 & 526). 5. Increased sediment from Cherry Creek Road. 6. Competition and hybridization between non-native fishes and Westslope cutthroat trout (WCT).	1 - 3. Reduce the frequency or duration of growing season use, including periodic rest. 4. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies. 5. Coordinate with USFS on road maintenance. 6. Coordinate placement of a fish barrier and removal of non-native fish in Cherry Creek.

Allotment Name, Number, Category <sup>1</sup> , & BLM Acres	Are Land Health Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Childs Individual SGC, 20310, (C), Acres: 267	NO	YES	NO <sup>2</sup>	YES	NO	1. Loss of cool season bunchgrasses and shrubs. 2. Pedestalling and water flow patterns. 3. Lack of vegetative cover for wildlife. 4. Spotted knapweed and common tansy near gravel pit. 5. Excessive and/or unnecessary fences.	1-3. Change to dormant season grazing and evaluate carrying capacity. 4. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies. 5. Remove and/or modify fences to facilitate wildlife passage.
Lost Creek, 20322, (C), Acres: 80	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue current management.
Lost-Willow, 30364, (I), Acres: 5,400	YES	YES	NO <sup>2</sup>	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Infestations of leafy spurge, spotted knapweed, and houndstongue.	1. Continue current management. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
North Willow Creek, 30311, (C), Acres: 44	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue current management.
Peck SGC, 20336, (C), Acres: 325	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue current management.

Allotment Name, Number, Category <sup>1</sup> , & BLM Acres	Are Land Health Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Seven Springs, 20337, (I), Acres: 2,028	YES	YES	NO <sup>2</sup>	YES	YES	1. Pedestalling and extensive water flow patterns. 2. Localized shift toward warm-season grasses and reduced annual production. 3. Maintain and/or improve habitat for sensitive plants. 4. Spotted knapweed along roads.	1- 3. Improve livestock distribution and/or shorten frequency or duration of growing season use, including periodic rest, and evaluate carrying capacity. 4. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
Sisterson, 20329, (M), Acres: 936	YES	N/A	N/A	YES	YES	1. No resource concerns identified from authorized uses. 2. Excessive and/or unnecessary fences.	1. Continue current management. 2. Remove and/or modify fences to facilitate wildlife passage.
Skeeters, 10332, (I), Acres: 723	YES	N/A	N/A	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Spotted knapweed along road.	1. Continue current management. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
Skeeters Meadows, 30372, (C), Acres: 58	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue current management.
Smith Individual SGC, 10346, (C), Acres: 165	YES	YES	*	YES	YES	1. Reduction in cool-season bunchgrasses and shrubs. 2. Excessive or unnecessary fences at Loose Nut Spring.	1. Change to dormant season grazing. 2. Remove and/or modify fences to facilitate wildlife passage.

Allotment Name, Number, Category <sup>1</sup> , & BLM Acres	Are Land Health Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
South Seven Springs, 20362, (I), Acres: 4,496	YES	NO	*	YES	YES	1. Soil compaction and channel alteration (506 & 535). 2. Overwidening, downcutting, decadent willows, and a vehicle crossing (519). 3. Incised channel, localized streambank trampling (501 & 502). 4. Juniper encroachment along Brownes Creek (540). 5. Excessive and/or unnecessary fences. 6. Aspen decline at Seven Springs. 7. Maintain and/or improve habitat for sensitive plants.	1. Cross-fence the Grose Pasture to limit time in riparian area. 2. Improve livestock distribution and install signs to reduce vehicle impacts. 3. Improve livestock distribution. 4. Consider juniper reduction treatments. 5. Remove and/or modify fences to facilitate wildlife passage. 6. Mechanical treatments and/or prescribed fire to regenerate aspen. 7. Continue rest-rotation grazing.
Twin Adam, 20347, (M), Acres: 1,379	YES	YES	NO <sup>2</sup>	YES	YES	No resource concerns identified.	Continue current management.
Vipond-Glendale, 30358, (I), Acres: 4,536	YES	YES	NO <sup>2</sup>	YES	YES	1. Hummocking and trampling from livestock and wildlife (517 & 525). 2. Localized infestations of leafy spurge and spotted knapweed along roads. 3. Fuel loading and Douglas-fir colonization in Louie Lowe Basin.	1. Enlarge exclosure (517) and improve livestock distribution. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies. 3. Mechanical treatments and/or prescribed fire to maintain sagebrush/grassland communities.

Allotment Name, Number, Category <sup>1</sup> , & BLM Acres	Are Land Health Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-diversity		
Willow Creek Individual, 20304, (C), Acres: 199	NO	N/A	N/A	YES	NO	1. Reduced annual production and reproductive capability, and loss of cool-season bunchgrasses. 2. Water flow patterns and pedestalling. 3. Lack of vegetative cover for wildlife. 4. Dump site and parked vehicles.	1 - 3. Reduce, rotate, or eliminate spring grazing. 4. Coordinate removal of dumped materials and parked vehicles.
Unallotted, Acres: 1,378	YES	YES	NO <sup>2</sup>	YES	YES	1. No resource concerns identified from authorized uses. 2. Spotted knapweed and houndstongue along road and Canyon Creek (503). Common tansy along Big Hole River (509).	1. Continue to manage as unavailable for livestock grazing. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
Unleased, Acres: 253	YES	N/A	N/A	YES	YES	No resource concerns identified.	Fence unleased parcels into adjacent allotments to facilitate better management, but do not increase permitted AUMs.
<sup>1</sup> Allotment Category: I = improve, M = maintain, C = custodial <sup>2</sup> The Montana Department of Environmental Quality (DEQ) has the responsibility for making water quality determinations and has completed its evaluation of 303(d)-listed streams. * Tributary streams in the EPW are not on the 303(d) list, are not priority streams, and are not scheduled to be evaluated by the DEQ.							

Allotment category refers to BLM's level of management for a given grazing allotment, based on resource values and opportunities for improvement. Allotments in the I-category are managed more intensively and are monitored more frequently. Allotments in the M-category are usually at a desired condition and are managed to maintain or improve that condition. Allotments in the C-category are usually isolated parcels with few resource concerns that are fenced in with larger parcels of deeded land, are managed in conjunction with the permittee/lessee's normal livestock operation, and are monitored less frequently.

## **Standard # 1: Upland Health**

The Childs Individual SGC and Willow Creek Individual Allotments are **not** meeting this standard.

On the Childs Individual SGC and Willow Creek Individual Allotments, IDT observations indicate a shift in dominance toward warm-season grasses that has reduced annual production, vegetative canopy cover, and infiltration, increased runoff, and resulted in water flow patterns and pedestalling. Similar, but localized, observations were also noted on the Cherry Creek, Seven Springs, and Smith Individual SGC Allotments, which are meeting the standard because of the small scale of these impacts, relative to the overall upland health on the allotments.

Current livestock management has been determined to be one of the contributing factors in not meeting the upland standard on the Childs Individual SGC and Willow Creek Individual Allotments.

## **Standard # 2: Riparian Health**

The Burk SGC and South Seven Springs Allotments are **not** meeting this standard:

The riparian areas that are not meeting the standards were determined to be FAR, with either a static or downward trend, or non-functional. Riparian habitat that is FAR with an upward trend is considered to be meeting the riparian health standard because it is making progress toward achieving PFC.

On the Burk SGC Allotment, trampling of the spring source and wetland is affecting vegetative composition and hydrologic function. On the South Seven Springs Allotment, the riparian areas that are not meeting the standard have altered vegetative composition along the riparian zone and/or reduced bank stability due to impacts from livestock trailing and/or grazing. Additional concerns include increased sediment and overwidening from road crossings, fluctuating irrigation return flows causing headcuts and downcutting, juniper encroachment, and aspen decline.

Other areas of concern include grazing/browsing impacts from livestock and wildlife in Louie Lowe Basin, on the Vipond-Glendale Allotment, which is meeting the standard because of the small scale of these impacts, relative to the overall riparian health on the allotment.

Current livestock management has been determined to be one of the contributing factors in not meeting the riparian standard on the Burk SGC and South Seven Springs Allotments.

## **Standard # 3: Water Quality**

The Childs Individual SGC, Lost-Willow, Seven Springs, Twin Adam, and Vipond-Glendale Allotments, and the unallotted parcels along the Big Hole River are **not** meeting this standard.

The Montana Department of Environmental Quality (DEQ) has the responsibility for making water quality determinations and has completed its evaluation of 303(d)-listed streams. The Big Hole River, Birch Creek, Lost Creek, Sassman Gulch, and Trapper Creek are on the 303(d) list and have been found to be impaired. Tributary streams in the EPW are not on the 303(d) list, are not priority streams, and are not scheduled to be evaluated by the DEQ.

The livestock grazing impacts described above, under the upland health standard, for the Childs Individual SGC Allotment, may also be providing non-point source pollution, and therefore be a contributing factor in not meeting the water quality standard on this allotment. On the remaining allotments and unallotted parcels, uses currently authorized by BLM are not believed to be contributing to degraded water quality.

#### **Standard # 4: Air Quality**

All of the allotments assessed within the watershed are meeting this standard.

#### **Standard # 5: Biodiversity**

The Childs Individual SGC and Willow Creek Individual Allotments are **not** meeting this standard.

Biodiversity is closely related to upland and riparian health. The biodiversity standard was not met on the Childs Individual SGC and Willow Creek Individual Allotments because of the impacts and conditions described under the upland standard. Additional concerns include the declining aspen stands at Seven Springs, on the South Seven Springs Allotment, Douglas-fir encroachment into sagebrush/grassland on the Vipond-Glendale Allotment, and impacts to WCT resulting from hybridization with and competition from non-native fish in Cherry Creek.

Current livestock management has been determined to be one of the contributing factors in not meeting the biodiversity standard on the Childs Individual SGC and Willow Creek Individual Allotments.

#### **NEPA Documentation**

Before any of the above stated recommendations can be implemented, NEPA documentation will be completed to analyze a range of reasonable alternatives to address resource concerns found during the Assessment. The Dillon Field Office will be working on the East Pioneer Environmental Assessment (DOI-BLM-MT-050-2009-0001-EA) during the spring of 2009.

Implementation of new plans will begin in 2009 and may take several years.

For more information, please review the East Pioneer Watershed Assessment Report or contact the Dillon Field Office at (406) 683-8000.

## Authorized Officer's Determination

Based on my review of the Assessment Team's recommendations, and other relevant data and information, I have determined that the following nine allotments and the unleased parcels within the East Pioneer Watershed **meet** all five of the Standards for Rangeland (Land) Health and Guidelines for Grazing Management for BLM lands in Montana:

- |                       |                         |
|-----------------------|-------------------------|
| 1. Birch Creek        | 6. Sisterson            |
| 2. Cherry Creek       | 7. Skeeters             |
| 3. Lost Creek         | 8. Skeeters Meadows     |
| 4. North Willow Creek | 9. Smith Individual SGC |
| 5. Peck SGC           | 10. Unleased Parcels    |

I have determined that the following eight allotments and the unallotted parcels **do not** meet the Standards for Rangeland Health and Guidelines for Grazing Management for BLM lands in Montana:

- |                          |                            |
|--------------------------|----------------------------|
| 1. Burk SGC              | 6. Twin Adam               |
| 2. Childs Individual SGC | 7. Vipond-Glendale         |
| 3. Lost-Willow           | 8. Willow Creek Individual |
| 4. Seven Springs         | 9. Unallotted Parcels      |
| 5. South Seven Springs   |                            |

I have determined that current livestock management is a significant causal factor in the land health standards **not being met** on the Burk SGC, Childs Individual SGC, South Seven Springs, and Willow Creek individual Allotments.

Pursuant to 43 CFR 4180.2(c), the Authorized Officer shall take appropriate action as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards. Appropriate action means implementing actions that will result in significant progress toward fulfillment of the standards. Practices and activities subject to standards and guidelines include the development, modification, or revision of AMPs, establishment of terms and conditions of permits, leases and other grazing authorizations, and range improvement activities such as vegetation manipulation, fence construction and development of water.

BLM Manual Handbook H-4180-1, Rangeland Health Standards Handbook, provides guidance for conducting watershed-based Land Health Assessments. It states "If the Land Health Standards are not being achieved because of a causal factor other than current livestock grazing management, you must consult other program guidance for the appropriate steps to be taken to ensure that progress toward meeting Standards is made."

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Dillon Field Manager

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Date